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U. S. Treasury Department.

Circular to a portion of the Consuls of  
the United States. Sept. 6, 1827.

Directions for putting up and trans-  
mitting seeds and plants. (Accompanying  
the letter of the Sec'y of the Treasury  
of Sept. 6, 1827.)

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U.S. - Treasury dept.

**CIRCULAR TO CONSULS.**

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## CIRCULAR

TO A PORTION OF THE CONSULS OF THE UNITED STATES.

### TREASURY DEPARTMENT,

SEPTEMBER 6, 1827.

SIR:

The President is desirous of causing to be introduced into the United States all such trees and plants from other countries not heretofore known in the United States, as may give promise, under proper cultivation, of flourishing and becoming useful, as well as superior varieties of such as are already cultivated here. To this end I have his directions to address myself to you, invoking your aid to give effect to the plan that he has in view. Forest trees useful for timber; grain of any description; fruit trees; vegetables for the table; esculent roots; and, in short, plants of whatever nature whether useful as food for man or the domestic animals, or for purposes connected with manufactures or any of the useful arts, fall within the scope of the plan proposed. A specification of some of them to be had in the country where you reside, and believed to fall under one or other of the above heads, is given at the foot of this letter, as samples merely, it not being intended to exclude others of which you may yourself have knowledge, or be able, on inquiry, to obtain knowledge. With any that you may have it in your power to send, it will be desirable to send such notices of their cultivation and natural history as may be attainable in the country to which they are indigenous; and the following questions are amongst those that will indicate the particulars concerning which information may be sought:—

1. The latitude and soil in which the plant most flourishes.



2. What are the seasons of its bloom and maturity, and what the term of its duration?

3. In what manner is it propagated? by roots, seeds, buds, grafts, layers, or how? and how cultivated? and are there any unusual circumstances attending its cultivation?

4. Is it affected by frost, in countries where frost prevails?

5. The native or popular name of the plant, and (where known) its botanical name and character.

6. The elevation of the place of its growth above the level of the sea.

7. Is there in the agricultural literature of the country, any special treatise or dissertation upon its culture? If so, let it be stated.

8. Is there any insect particularly habituated to it?

9. Lastly—its use, whether for food, medicine, or the arts.

In removing seeds or plants from remote places across the ocean, or otherwise, great care is often necessary to be observed in the manner of putting them up and conveying them. To aid your efforts in this respect upon the present occasion, a paper of directions has been prepared, and is herewith transmitted.

The President will hope for your attention to the objects of this communication as far as circumstances will allow; and it is not doubted but that your own public feelings will impart to your endeavours under it, a zeal proportioned to the beneficial results to which the communication looks. It is proper to add, that no expense can at present be authorized in relation to it. It is possible, however, that Congress may not be indisposed to provide a small fund for it. The seeds, plants, cuttings, or whatever other germinating substance you may transmit, must be addressed to the Treasury Department, and sent to the Collector of the port to which the vessel conveying them is destined, or where she may arrive, accompanied by a letter of advice to the depart-



ment. The Secretary of the Navy has instructed the Commanders of such of the public vessels of the United States as may ever touch at your port, to lend you their assistance towards giving effect to the objects of this communication; as you will perceive by the copy of his letter of instructions, which is herewith enclosed for your information. It is believed, also, that the Masters of the merchant vessels of the United States, will generally be willing—such is their well-known public spirit—to lend their gratuitous co-operation towards effecting the objects proposed.

I remain, respectfully,

Your most obedient servant,

*Signed*  
*Richard Lush*

To

Esquire,

Consul of the United States at

mean. The Secretary of the Navy has instructed the  
Commanders of such of the public vessels of the United  
States as may ever touch at your port, to land you their as-  
sistance towards giving effect to the objects of this com-  
munication; as you will perceive by the copy of the letter of  
instructions, which is herewith enclosed for your informa-  
tion. It is believed, also, that the Masters of the merchant-  
vessels of the United States will generally be willing—  
such is their well-known public spirit—to land their grain  
in accordance with the requisition of such a government  
as yours. I remain, respected Sir, your  
very obedient servant, and in a  
very anxious expectation of the  
reply which you will be pleased to  
send me, and which I shall be  
glad to receive. I am, Sir,  
Your obedient servant,  
J. J. [Signature]



## DIRECTIONS

FOR PUTTING UP AND TRANSMITTING

## SEEDS AND PLANTS.

[Accompanying the letter of the Secretary of the Treasury of September 6th, 1827.]



With a view to the transmission of seeds from distant countries, the first object of care is to obtain seeds that are fully ripe, and in a sound and healthy state. To this the strictest attention should be paid; otherwise, all the care and trouble that may be bestowed on them, will have been wasted on objects utterly useless.

Those seeds that are not dry when gathered, should be rendered so by exposure to the air, in the shade.

When dry, the seeds should be put into paper bags. Common brown paper has been found to answer well for making such bags. But, as the mode of manufacturing that paper varies in different countries, the precaution should be used of putting a portion of the seeds in other kinds of paper. Those that most effectually exclude air and moisture, are believed to be the best for that purpose. It would be proper, also, to enclose some of the seeds in paper or cloth that has been steeped in melted bees-wax. It has been recommended that seeds collected in a moist country, or season, be packed in charcoal.

After being put up according to any of these modes, the seeds should be enclosed in a box; which should be covered with pitch to protect them from damp, insects, and mice. During the voyage they should be kept in a cool, airy, and dry situation;—not in the hold of the ship.

The oily seeds soonest lose their germinating faculty. They should be put in a box with sandy earth, in the

following manner:—first about two inches of earth at the bottom; into this the seeds should be placed at distances proportionate to their size; on these another layer of earth about an inch thick; and then another layer of seeds;—and so on with alternate layers of earth and seeds until the box is filled within about a foot of the top, which space should be filled with sand; taking care that the earth and sand be well put in, that the seeds may not get out of place. The box should then be covered with a close network of cord well pitched, or with split hoops or laths also pitched; so as to admit the air without exposing the contents of the box to be disturbed by mice or accident. The seeds thus put up will germinate during their passage, and will be in a state to be planted immediately on their arrival.

Although some seeds with a hard shell, such as nuts, peaches, plums, &c. do not come up until a long time after they are sown, it would be proper, when the kernel is oily, to follow the method just pointed out, that they may not turn rancid on the passage. This precaution is also useful for the family of laurels, (*laurineæ*) and that of myrtles, (*myrti*) especially when they have to cross the equatorial seas.

To guard against the casualties to which seeds in a germinating state may be exposed during a long voyage, and, as another means of ensuring the success of seeds of the kinds here recommended to be put into boxes with earth, it would be well, also, to enclose some of them (each seed separately) in a coat of bees-wax, and afterwards pack them in a box covered with pitch.

In many cases it will be necessary to transmit roots. Where roots are to be transmitted, fibrous roots should be dealt with in the manner herein recommended for young plants. Bulbous and tuberous roots should be put into boxes in the same manner as has already been recommended



for oleagenous seeds; except, that, instead of earth, dry sand as free as possible from earthy particles, should be used. Some of the bulbous and tuberous roots, instead of being packed in sand, may be wrapped in paper, and put in boxes covered with net-work or laths. Roots should not be put in the same box with seeds.

Where the seeds of plants cannot be successfully transmitted, they may be sown in boxes, and sent in a vegetating state. Where more than one kind is sown in the same box, they should be kept distinct by laths, fastened in it crosswise on a level with the surface of the ground in which they are sown: and, when different soils are required, it will be necessary to make separate compartments in the box. In either case they should be properly marked, and referred to in the descriptive notes which accompany them.

When plants cannot be propagated from seeds with a certainty of their possessing the same qualities which long culture or other causes may have given them, they may be sent in a growing state. For this purpose, they should be taken up when young. Those, however, who are acquainted with their cultivation in the countries where they grow, will know at what age they may be safely and advantageously removed. They may be transplanted direct into the boxes in which they are to be conveyed; or, where that cannot be conveniently done, they may be taken up with a ball of earth about the roots, and the roots of each surrounded with wet moss, carefully tied about it to keep the earth moist. They may afterwards be put into a box, and each plant secured by laths fastened crosswise above the roots, and the interstices between the roots, filled with wet moss. The same methods may be observed with young grafted or budded fruit trees.

Where the time will permit, it is desirable that the roots of the plants be well established in the boxes in which they

are transplanted. Herbaceous plants require only a short time for this ; but, for plants of a woody texture, two or three months is sometimes necessary.

Boxes for the conveyance of plants, or of seeds that are sown, may be made about two feet broad, two feet deep, and four feet long, with small holes in the bottom, covered with a shell, or piece of tile or other similar substance for letting off any superfluous water. There should be a layer of wet moss of two or three inches deep at the bottom, or, if that cannot be had, some very rotten wood or decayed leaves, and upon that about twelve inches depth of fresh loamy earth, into which the plants that are to be transplanted should be set. The surface of the earth should be covered with a thin layer of moss cut small, which should be occasionally washed in fresh water during the voyage, both to keep the surface moist, and to wash off mouldiness or any saline particles that may be on it.

When the boxes are about to be put on board the ship, hoops of wood should be fastened to the sides, in such a manner, that, arching over the box, they may cover the highest of the plants ; and over these should be stretched a net work of pitched cord, so as to protect the plants from external injury, and prevent the earth from being disturbed by mice or other vermin.

To each box should be fastened a canvass cover, made to go entirely over it, but so constructed as to be easily put on or off, as may be necessary, to protect the plants from the salt water, or winds, and sometimes from the sunshine. Strong handles should be fixed to the boxes that they may be conveniently moved.

During the voyage, the plants should be kept in a light, airy situation, without which, they will perish. They should not be exposed to severe winds, nor to cold, nor for a long time to too hot a sunshine, nor to the spray of the salt water. To prevent injury from the saline particles



with which the air is oftentimes charged at sea, (especially when the waves have white frothy curls upon them) and which on evaporation close up the pores of the plants and destroy them, it will be proper, when they have been exposed to them, to wash off the salt particles by sprinkling the leaves with fresh water.

The plants and seeds that are sown will occasionally require watering on the voyage, for which purpose rain water is best. If, in any special case, particular instructions on this point, or upon any other connected with the management of the plants during the voyage, be necessary, they should be made known to those having charge of the plants. But, after all, much will depend upon the judicious care of those to whom the plants may be confided during the voyage.

Plants of the succulent kind, and particularly of the Cactus family, should not be planted in earth, but in a mixture of dry sand, old lime rubbish and vegetable mould, in about equal parts, and should not be watered.

It may not be necessary, in every case, to observe all the precautions here recommended in regard to the putting up and transmission of seeds; but it is believed, that there will be the risk in departing from them, in proportion to the distance of the country from which the seeds are to be brought, and to the difference of its latitude, or of the latitudes through which they will pass on the voyage. It is not intended, however, by these instructions, to exclude the adoption of any other modes of putting up and transmitting seeds and plants, which are in use in any particular place, and which have been found successful, especially if more simple. And it is recommended, not only that the aid of competent persons be accepted in procuring and putting up the seeds and plants, but that they be invited to offer any suggestions in regard to the treatment of the plants during the voyage, and their cultivation and use afterwards.



[CIRCULAR.]

*NAVY DEPARTMENT,*

SIR:

I have to call your attention to the enclosed copy of a communication from the Treasury Department, to the Consuls of the United States at various posts; and to desire that the objects of that communication may be promoted by you, on all occasions, as far as may be in your power.

The Executive takes a deep interest in this matter, and, by particular attention to it, you will probably confer a lasting benefit to the country.

The letter of the Secretary of the Treasury is so full and satisfactory, that no farther explanations seem necessary on my part.

You will be pleased to report to the Department what you do in execution of this object, and return the papers to the Department, when you are detached from the vessel which you now command.

I am, respectfully, &c. &c.

SAM. L. SOUTHARD.









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